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### (54) FLAME RESISTANT THERMAL LINER, COMPOSITE FABRIC, AND GARMENT

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### (57) ABSTRACT

The present invention relates to a flame resistant thermal liner comprising a nonwoven sheet comprising nanofibers of a synthetic polymer having an limiting oxygen index of at least 21, a mean flow pore of 10 micrometers or less, a thickness air permeability of 25 to 6000 cubic feet per min–micrometers (12 to 2880 cubic meters per square meter per min–micrometers), and an average thickness  $T_1$ ; and a thermally stable flame resistant fabric attached to an outer surface of the nonwoven sheet, the fabric having an average thickness  $T_2$ ; a surface of the thermally stable fabric being in contact with a surface of the nonwoven sheet; wherein  $T_1$  and  $T_2$  are selected such that the ratio of  $T_1$  to  $T_2$  is less than 0.75. The invention also relates to a flame resistant composite fabric comprising the flame resistant thermal liner and a garment comprising this flame resistant composite fabric.